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5 **Thriving Together: Conceptual and Methodological Considerations for Examining**

6 **Thriving in Interdependent Sport**

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21 **Abstract**

22 Despite conceptual advances and preliminary associations highlighting the benefits of thriving in
23 sport, opportunities for continued research are numerous. Notably, sport-specific research
24 involving thriving has predominantly taken an individual athlete perspective. Interestingly,
25 evidence from the organisational domain suggests that thriving can manifest at a collective level
26 through interdependent team member interactions. Given the potential for thriving to emerge as a
27 higher-level phenomenon in interdependent sport, a critique of thriving at the group-level is
28 advanced. More specifically, we provide a summary of existing individual athlete thriving
29 literature and organisational thriving research at the group-level (Part 1), propose three
30 approaches to conceptualising thriving in interdependent sport (i.e., common, team, and
31 collective thriving) grounded in multilevel research (Part 2), pose guiding questions and key
32 considerations for future exploration (Part 3), and conclude by emphasising the potential value of
33 examining thriving as a higher-level construct for sport researchers and invested partners (Part
34 4).

Keywords: Collectives; construct development; emergence; multilevel; teams

58 al., 2022), cross-sectionally (Brown et al., 2017) as well as over the course of a month (Brown et
59 al., 2021), and by using both quantitative (e.g., questionnaires; Rouquette et al., 2021) and
60 qualitative methods (e.g., ethnography; Passaportis et al., 2022). As a result, researchers have
61 identified various personal (e.g., positive mental state; Brown et al., 2018) and contextual
62 enablers (e.g., high quality relationships; Davis et al., 2021) as well as mediating mechanisms of
63 athlete thriving (e.g., basic psychological needs satisfaction, BPNS; Brown et al., 2017).

64 Despite these numerous advancements, research pertaining to thriving in sport remains in
65 its infancy. For example, sport-specific research has solely examined thriving at the individual
66 athlete level. Interestingly, when considered alongside the literature from organisational
67 psychology and behavioural domains, there exists both anecdotal support and empirical evidence
68 to suggest that collectives can also thrive (Spreitzer & Sutcliffe, 2007). Indeed, this notion of
69 thriving at a group-level is often embedded within media headlines and marketing slogans
70 describing ‘How to build thriving teams’ or within recommendations for ‘Creating thriving
71 organisations’ (Brown, 2021). In addition, developments within the field of organisational
72 science have suggested that while thriving originates within individuals’ subjective experiences,
73 in contexts of high interdependence and stable membership, a dyad/team can collectively
74 experience thriving through the process of emotional contagion (e.g., Spreitzer & Sutcliffe,
75 2007). Here, thriving groups or teams are described as not merely the sum of thriving individuals
76 but rather, as a unique higher-level phenomenon that emerges through the interactions of team
77 members (Keister, 2014).

78 Given that athletes are embedded in highly interdependent environments (i.e., when team
79 members rely on one another to accomplish tasks, achieve personal and group-level outcomes, or
80 contribute resources; Evans et al., 2012), it is likely that through frequent member interactions,

81 group-level experiences pertaining to shared cognitions, affect, and behaviours emerge (Wolf et
82 al., 2018). Thus, interdependent sport environments may serve as an ideal context for the
83 examination, development, and promotion of thriving at a group-level. Considering the potential
84 for thriving collectives to emerge in interdependent sporting environments, the purpose of this
85 article is to advance the concept of thriving as a group-level construct by introducing relevant
86 considerations pertaining to its conceptualisation and operationalisation. More specifically, we
87 provide a summary of existing individual athlete thriving and organisational thriving research at
88 the group-level (Part 1), propose three approaches to conceptualising thriving as a group-level
89 construct in interdependent sport (Part 2), pose guiding questions and key considerations for
90 future research (Part 3), and conclude by emphasising the potential value of examining thriving
91 as a higher-level construct (Part 4).

92 **Part 1: Current Understandings of Thriving**

93 Herein, we provide a high-level overview of research conducted on individual athlete
94 thriving and describe preliminary literature on thriving collectives from the
95 industrial/organisational domain (i.e., I/O psychology). This information serves as the starting
96 point from which thriving at the group-level in sport can be discussed. For those interested in an
97 in-depth review of individual thriving literature within and beyond the sport domain, please see
98 Brown et al. (2021) and Brown et al. (2017). Pertaining to thriving as a collective construct, we
99 direct the reader to Spreitzer and Sutcliffe's (2007) discussion on thriving in organisations as
100 well as a multilevel review of thriving at work (Goh et al., 2022).

101 **Research on Individual Athlete Thriving**

102 The ways in which thriving has been conceptualised in sport differs broadly based on
103 whether a developmental, organisational, or social perspective is adopted. One field of research

104 that sport has drawn heavily on is that of developmental psychology. Thriving first arose in the
105 field of medicine pertaining to the assessment of new-borns' physical conditions (e.g., reflexes,
106 breathing rate) and what was subsequently deemed a failure to thrive when developmental
107 milestones were not met (e.g., Benson & Scales, 2009). However, during the positive psychology
108 movement and subsequent proliferation of positive youth development (PYD) research,
109 psychologists began to denote thriving as an indicator of adolescent development (e.g., Benson
110 & Scales, 2009). Here, thriving is viewed as a life-span process of positive developmental
111 changes and functioning during adolescence marked by the '5 Cs' of PYD—that is, competence,
112 confidence, character, connection, and caring (Benson & Scales, 2009).

113 In contrast, I/O psychology researchers describe thriving as a psychological state—rather
114 than a process—in which individuals feel momentum or progress characterised by the joint
115 experience of learning (i.e., acquiring knowledge and skills) and vitality (i.e., aliveness; Spreitzer
116 et al., 2005). Importantly, one cannot be learning (e.g., developing new skills) but be lacking in
117 vitality (e.g., feeling burned out) and thus, must be experienced simultaneously to be considered
118 thriving. Moreover, these dimensions are situated in both hedonic and eudaimonic motives, in
119 that humans seek (a) pleasurable life experiences and (b) the fulfilment of one's potential (Ryan
120 & Deci, 2000). Within the I/O domain, then, thriving is described as an adaptive function that has
121 implications for an individual's health and work performance (Spreitzer & Sutcliffe, 2007).

122 In addition, social psychologists have discussed thriving based on attachment and social
123 support theories to describe the interpersonal processes experienced during both life opportunity
124 and adversity (Feeney & Collins, 2015). Here, thriving is discussed in relation to an individual's
125 well-being across five dimensions (i.e., hedonic, eudaimonic, psychological, social, and physical
126 well-being). During times of adversity (i.e., negative stress), social support persons serve as a

127 source of strength that can comfort and protect the individual, which results in immediate short-
128 term (e.g., decrease in negative emotions) and long-term (i.e., thriving) outcomes. During
129 experiences when adversity is absent, social support persons play a key role in serving as
130 relational catalysts, in that they promote the engagement in opportunities that have the potential
131 to enhance one's well-being through building relevant resources and finding meaning in life.
132 Immediate outcomes include experiencing positive emotions and increased physical and mental
133 health that over time, promote thriving. Altogether, social support systems play an integral role in
134 promoting thriving through relationships during times of both adversity and opportunity.

135 Specific to the sport context, various conceptualisations of thriving have been adopted
136 depending on the field within which researchers have grounded their work (e.g., developmental,
137 Côté et al., 2020; organisational, Kinoshita et al., 2022; social, Rouquette et al., 2021). Notably,
138 key differences exist across these conceptualisations such as whether thriving is defined as a
139 state (organisational psychology) versus a process (developmental psychology). Similarly,
140 whether performance is seen as a predictor (e.g., achieving situation-relevant outcomes; social
141 psychology), characteristic (developmental psychology), or outcome of thriving (organisational
142 psychology) differs across research fields. In this regard, the context-specific nature of these
143 conceptualisations and subsequent lack of conceptual clarity may hinder one's ability to
144 accurately understand and examine thriving in sport (Brown et al., 2017).

145 As a consequence of such limitations, Brown et al. (2017) proposed an all-encompassing
146 definition of thriving, described as the joint experience of development (i.e., humans have an
147 innate drive for growth and self-fulfilment) and success (i.e., achieving context-relevant
148 outcomes). This definition has important implications for sport research as it overcomes
149 limitations of existing conceptualisations. For instance, it has been suggested that Spreitzer and

150 colleagues' (2005) conceptualisation of thriving is too narrow for the sport context in that (a)
151 both vitality and learning can be encompassed within the dimension of development, and (b) this
152 conceptualisation neglects a core component of sport—performance. Given that performance is
153 inseparable from well-being when shaping athletes' sporting experiences, Brown et al.'s
154 conceptualisation seeks to overcome the context-specific nature of the aforementioned definition.
155 Moreover, this conceptualisation overcomes temporal constraints (Benson & Scales, 2009) and is
156 applicable across age ranges (Brown et al., 2017). Given the many strengths associated with this
157 definition (i.e., joint experience of development and success), it has been applied frequently in
158 the sports context (e.g., Brown et al., 2018; McHenry et al., 2022) and thus, will serve as the
159 foundation for our discussions throughout this paper.

160 *Personal and Contextual Enablers*

161 Researchers have used qualitative and quantitative methods to identify both personal and
162 contextual enablers that best promote thriving in individuals. Where personal enablers are an
163 individual's attitudes, cognitions, and behaviours that help them thrive, contextual enablers are
164 environmental characteristics that foster task engagement and subsequent thriving (Brown et al.,
165 2017). Pertaining to personal enablers, both resilience (Sarkar & Fletcher, 2014) and mental
166 toughness can promote thriving (Gucciardi et al., 2017). Specifically, individuals who are open
167 to new challenges (e.g., proactive personality), value new learning experiences, and are
168 adaptable when presented with challenging situations are more likely to thrive (Gucciardi et al.,
169 2017). Moreover, one's hedonic (e.g., seeking pleasure, fun) and eudaimonic motives (e.g.,
170 seeking growth, self-improvement; Kinoshita et al., 2022), as well as self-regulatory skills are all
171 described as important personal enablers of thriving (Brown et al., 2018).

172 In relation to contextual enablers, high quality attachment relationships (e.g., coach-
173 athlete, parent-athlete; Davis et al., 2021), parental responsiveness (e.g., Rouquette et al., 2021),
174 and perceived social support (e.g., coaches, teammates; Brown et al., 2018) are key factors in
175 promoting thriving. Moreover, Brown and Arnold (2019) found relationships between teammates
176 that were grounded in effective communication and collective goal setting as well as quality
177 connections with the coaching staff/club (e.g., showing interest in, and trusting their athletes) to
178 be contextual enablers of thriving. At an environmental level, sport contexts characterised as
179 being psychologically safe (i.e., a fear-free environment that promotes risk-taking; Brown et al.,
180 2021) and that maintain an appropriate balance of challenge (e.g., opportunity to grow) and
181 support (e.g., promotes exploration) can enable athlete thriving (Brown et al., 2018). In addition,
182 athletic environments founded on understanding, openness, and trust have also been recently
183 found to facilitate athlete thriving (Passaportis et al., 2022).

184 *Process Variables*

185 Researchers have also begun to examine various psychosocial process variables that are
186 expected to serve as the mechanisms through which the previously identified enablers elicit
187 thriving. Grounded in theoretical research, two variables that have been proposed to determine
188 thriving are BPNS (i.e., the degree to which individuals experience satisfaction in autonomy,
189 competence, and relatedness) and challenge appraisal (i.e., individuals have the appropriate
190 resources to cope with stressors; Brown et al., 2017; Ryan & Deci, 2017). Importantly, the
191 satisfaction of BPNs has been found to influence social-contextual factors resulting in fully
192 functioning individuals (Ryan & Deci, 2017). For instance, Davis et al. (2021) found athletes'
193 attachment to their coaches to be significantly associated with thriving, mediated by BPNS.
194 Similarly, Kinoshita et al. (2022) found hedonic and eudaimonic motives to be positively

195 associated with thriving through BPNS. Altogether, BPNS is described as a core facilitator of
196 human growth and a prerequisite of thriving (Ryan & Deci, 2017). In relation to challenge
197 appraisal, resilient qualities (a personal enabler) and perceived social support (a contextual
198 enabler) have been found to influence thriving when an individual perceives a stressor as a
199 challenge rather than a threat—thereby resulting in positive change and growth (Kipp & Weiss,
200 2013; Freeman & Rees, 2009). Specific to sport, Brown et al. (2017) found that athlete thriving
201 was predicted by personal resilience and psychological skills use (personal enablers) as well as
202 BPNS and challenge appraisal (process variables). In addition, Brown et al. (2021) found that
203 athletes who perceive situations as a challenge rather than a threat pre-match, were more likely to
204 experience in-match thriving. Notably, researchers have also begun to look beyond BPNS and
205 challenge appraisal. For instance, Rouquette et al. (2021) recently found athletes' perceptions of
206 their parents' responsiveness, mediated by athletes' self-esteem, to influence athlete thriving.

207 *Means of Assessment*

208 The ways in which athlete thriving has been measured across sport psychology research
209 has differed depending on how thriving is conceptualised. Brown et al.'s (2017)
210 conceptualisation (i.e., joint experience of development and success) has been most frequently
211 adopted and is subsequently assessed via subjective perceptions of performance and well-being
212 (i.e., subjective vitality and affect) with thriving individuals scoring highly across these
213 indicators (Brown et al., 2017). Subjective performance has been quantitatively measured by
214 examining participants' satisfaction with their sporting performance over the past month (e.g.,
215 Brown et al., 2017) or pertaining to a specific sporting encounter (e.g., competition, match;
216 Brown et al., 2021). In relation to well-being, while a variety of well-being measures exist across
217 sport research (e.g., Giles et al., 2020), in the context of thriving, well-being is most frequently

218 divided into hedonic and eudaimonic well-being (Brown et al., 2017). Notably, measuring these
219 dimensions has been described as a more comprehensive approach to understanding true well-
220 being (Deci & Ryan, 2000). To assess hedonic well-being, athletes have completed derivatives of
221 the Positive and Negative Affect Schedule (i.e., PANAS, Watson et al., 1988). For instance,
222 Rouquette et al. (2021) measured hedonic well-being via the child version (PANAS-C; Ebesutani
223 et al., 2012) while Kinoshita et al. (2022) employed the international short-form (I-PANAS-SF;
224 Thompson, 2007). In addition, eudaimonic well-being has been assessed using the Subjective
225 Vitality Scale (SVS; Ryan & Frederick, 1997) such as by Brown et al. (2017) and Davis et al.
226 (2021). Notably, variations in measurement exist across sport research depending on the
227 conceptual underpinnings of said construct. For instance, Rouquette et al. (2021) grounded their
228 thriving work in social psychology (i.e., thriving as an optimal state of well-being; Feeney &
229 Collins, 2015) and thus, measured thriving using the Cantril Ladder of self-related satisfaction
230 (Cantril, 1965) and a health quality single-item scale (Benjamins et al., 2004) in addition to
231 PANAS-C and SVS.

232 Interestingly, sport researchers have also explored various physical indicators of thriving.
233 Grounded in research that focuses on hormonal responses to stressful situations, thriving is
234 predicted to occur when higher levels of anabolic hormones (i.e., restorative hormones such as
235 dehydroepiandrosterone; DHEA) are released in comparison to catabolic hormones (i.e.,
236 protective hormones such as cortisol; Epel et al., 2008). Notably, cortisol increases in response to
237 stress (Sapolsky et al., 2000) while DHEA has been found to positively effect well-being
238 (Maninger et al., 2009). Thus, lower cortisol and higher DHEA levels may demonstrate an
239 individual's ability to cope effectively with a stressor and serve as an indicator of thriving (Epel
240 et al., 2008). Grounded in this work, Brown et al. (2021) predicted that a higher ratio of DHEA

241 to cortisol would positively relate to in-match thriving, and that total cortisol exposure
242 throughout the morning of a match and immediately pre-match would negatively relate to
243 thriving. While findings were not statistically significant, small to moderate negative correlations
244 found between cortisol and total cortisol exposure and thriving support the idea that lower
245 cortisol responses to stress are associated with thriving (Epel et al., 2008). Similarly, the small
246 positive correlation between DHEA and thriving further supports the positive DHEA-well-being
247 relationship (Maninger et al., 2009). This was the first study to assess thriving by physiological
248 markers, and future research may benefit from exploring whether these hormones are
249 mechanisms through which thriving is elicited or markers of thriving in and of itself.

250 **Research on Thriving at a Group-Level**

251 Research efforts in sport have emphasised individual athlete thriving, whereas researchers
252 from I/O psychology have begun to explore the idea of thriving as a group-level construct
253 (Spreitzer & Sutcliffe, 2007; Spreitzer et al., 2005). Rooted in the conceptualisation of thriving
254 as a joint experience of learning and vitality, Spreitzer and Sutcliffe (2007) suggest that while
255 thriving originates within the cognitions, affect, and behaviours of individuals, in highly
256 interdependent contexts with stable membership, positive affect can spread amongst group
257 members via the process of emotional contagion (Barsade, 2002). This is important because the
258 contagion is proposed to then result in thriving across dyads, groups, and/or organisations—
259 coined ‘collective thriving’ (Spreitzer & Sutcliffe, 2007; Thompson & Ravlin, 2017). The
260 concept of collective thriving has also been grounded in broaden-and-build theory, which
261 suggests that as individuals experience positive emotions, the potential behaviours or actions one
262 can engage in (i.e., agentic work behaviours) ‘broadens’, which in turn, further promotes positive
263 affect (Fredrickson, 1998; Keister, 2014). At a collective level, the broader range of behaviours

264 that exist for a team to engage in (e.g., innovative thinking, effective decision making,
265 perspective-taking), the more likely they will successfully meet team goals and accomplish
266 relevant tasks—leading to collective thriving (Keister, 2014).

267 Collective thriving is broadly described as a shared emotional and psychological state
268 that is attributable to the group and influenced by the context in which the group is embedded
269 (Keister, 2014). To be more specific, a dyad, group, or organisation is considered to be thriving
270 when it is characterised by high levels of learning and vitality (Spreitzer & Sutcliffe, 2007). As
271 previously alluded to, a thriving collective is not described as simply a sum of its individual
272 thriving members but rather, is a unique and conceptually distinct higher-level phenomenon
273 (Spreitzer & Sutcliffe, 2007). Accordingly, although a team can be thriving due to the attainment
274 of collective goals (e.g., learning) and demonstration of determination (vitality), this could occur
275 at the cost of individual member welfare (e.g., members feel burned out). The opposite can also
276 be true—an individual team member is thriving (e.g., experiencing learning and vitality), but
277 their success does not contribute to the team’s collective objectives or development. Thus, when
278 examining thriving at a group-level, it is important to consider the influence of individuals’
279 subjective experiences on thriving collectives and vice-versa (Spreitzer & Sutcliffe, 2007).

280 *Personal and Contextual Enablers*

281 Although the emergence of collective thriving research is in its infancy, the construct has
282 been associated with a variety of positive outcomes in the organisational context. For instance,
283 collective thriving has been positively associated with team resilience, performance,
284 team/organisational growth, and the achievement of collective goals (Spreitzer & Sutcliffe,
285 2007). As such, researchers have begun to explore various enablers of collective thriving. For
286 instance, Keister (2014) found attunement—which is defined as “a team’s ability to self-regulate

287 development and well-being through emotional and sensory cues” (p. 306)—to predict collective
288 thriving. In other words, when team members are aware of, and attentive to, the needs and
289 behaviours of themselves as well as their team as a whole, collective thriving is promoted.

290 Given that leaders can positively influence the affect and performance of their followers,
291 various types of leadership have also been explored in the organisational domain as key enablers
292 of collective thriving. For instance, Walumbwa et al. (2018) noted that servant leaders in the
293 business context who are empathetic, nurturing, and who focus on followers’ needs could
294 enhance task engagement and vitality of their team members. Servant leaders also promoted the
295 engagement in creative and innovative work behaviours which could stimulate enhanced vitality,
296 learning, and performance. Indeed, when servant leaders promoted a psychologically safe
297 environment for their followers at work (e.g., founded in genuine care, trust, and respect), the
298 followers were more likely to engage in exploration, develop new skills, and experience positive
299 emotions—promoting a shared sense of learning and vitality amongst the collective (Xu &
300 Wang, 2020). Similarly, authentic leaders who demonstrate high ethical morals and work
301 collaboratively with their followers to achieve relevant objectives have also been found to
302 promote collective thriving (Wu & Chen, 2019).

303 At an environmental level, and pertaining to team culture, Jenkins (2010) conducted a
304 case study in the retail sector and found that when a team was characterised by high quality
305 relationships (e.g., displaying genuine concern or care for team members) and was embedded in
306 an environment that was supportive yet challenging (e.g., members are free to make mistakes,
307 there is trust in their leaders), members were more likely to view challenges as opportunities for
308 learning and growth that contributed towards a thriving team. Additional environmental
309 characteristics that promoted a culture conducive to collective thriving encompassed inclusivity

310 (e.g., values diversity) and transparency (e.g., effective communication). Last, by adopting a
311 holistic, whole-person approach (e.g., valuing team members beyond their context-specific roles,
312 prioritising the well-being of team members), collective thriving in the retail sector was more
313 readily cultivated. Altogether, when a team's culture promotes the satisfaction of BPNs and that
314 as a team, members 'buy-in' to the aforementioned behavioural expectations, collective thriving
315 can be achieved (Jenkins, 2010). Overall, unique intrapersonal, interpersonal, and environmental
316 factors including, but not limited to, specific types of leadership styles, attunement, and team
317 culture may play important roles when seeking to promote thriving at a group-level in
318 interdependent sport.

319 *Process Variables*

320 Researchers in the field of organisational psychology have also begun to examine the
321 influence of various mediating mechanisms on collective thriving. For instance, collective
322 mindfulness (i.e., collective awareness and resilience in the face of unexpected events) has been
323 found to partially mediate the authentic leadership-collective thriving relationship at work (Wu
324 & Chen, 2019). Along these lines, the quality of leader-member exchanges has also been found
325 to mediate the leadership-collective thriving relationship (Xu & Wang, 2020). Finally, and as
326 previously alluded to, emotional contagion may serve as an important mediating mechanism
327 when examining the processes through which thriving at a group-level emerges (Spreitzer &
328 Sutcliffe, 2007). More specifically, in interdependent contexts, the positive emotions an
329 individual experiences when thriving are expected to be 'caught' by team members via emotional
330 contagion, resulting in thriving collectives over time (Keister, 2014).

331 Altogether, despite this research offering insight into potential mechanisms of thriving
332 collectives in sport, it is important to remember that the thriving conceptualisation used in I/O

333 research has been argued to be incompatible/inappropriate for thriving in sport (i.e., neglects
334 performance aspect; Brown et al., 2017). Thus, these findings should be interpreted cautiously
335 and/or re-imagined with a sport-appropriate framework/conceptualisation (i.e., joint experience
336 of development and success; Brown et al., 2017) when conducting future empirical work.

337 *Means of Assessment*

338 To assess thriving at a collective level in the organisational context, researchers have
339 modified the 10-item individual thriving at work scale developed and validated by Porath et al.
340 (2012). This scale is grounded in the conceptualisation of thriving as the joint experience of
341 vitality (e.g., ‘I feel alive and vital’; ‘I have energy and spirit’) and learning (e.g., ‘I find myself
342 learning often’; ‘I continue to learn more and more as time goes by’). For instance, Wu and Chen
343 (2019) adopted a referent-shift consensus model (cf. Chan, 1998), in that the referent from
344 Porath et al.’s (2012) measure was changed from ‘I’ to ‘Team members’ (e.g., ‘Team members
345 have energy and spirit’; ‘Team members continue to learn more as time goes by’). A direct-
346 consensus model (Chan, 1998) has also been used, where individual responses pertaining to
347 one’s own thriving (using Porath et al.’s 10-item scale) have been aggregated to represent
348 collective thriving (e.g., Xu & Wang, 2020). Alternatively, a dispersion model (Chan, 1998) has
349 been employed where variance in thriving scores at both the team and individual levels are
350 examined (Walumbwa et al., 2018). Notwithstanding the issues associated with applying the
351 thriving at work conceptualisation (Spreitzer & Sutcliffe, 2007) and associated measures to sport
352 (i.e., absence of performance; Brown et al., 2017), the aforementioned compositional models
353 used to measure collective thriving via individual-level questionnaires may serve as a useful
354 avenue for examining group-level thriving in sport. These compositional approaches (i.e., direct-
355 consensus, referent-shift, dispersion) are elaborated on in Part 2.

356 **Part 2: Thriving as a Group-level Construct in Interdependent Sport**

357 To develop propositions pertaining to the conceptualisation and operationalisation of
358 thriving as a group-level construct in interdependent sport, we draw on multilevel theory (e.g.,
359 Kozlowski & Klein, 2000) as well as group/team dynamics literature (e.g., Eys et al., 2020;
360 Forsyth, 2014) in the subsequent sections. Importantly, the propositions discussed are not
361 definitive but rather, are meant to serve as a heuristic or sounding board for further reflection and
362 empirical exploration of thriving in interdependent sport contexts.

363 **A Multilevel Framework of Thriving in Interdependent Sport**

364 Multilevel frameworks seek to bridge micro (i.e., lower level) and macro (i.e., higher-
365 level) perspectives (Kozlowski & Klein, 2000). Thus, it is important to consider the
366 interconnectedness of individual athlete thriving and thriving at the group/team-level. To do so,
367 Kozlowski and Klein (2000) suggest top-down or bottom-up approaches. A top-down approach
368 places emphasis on how higher-level contextual features influence lower levels of a system
369 (Kozlowski & Klein, 2000). As one example in the context of sport, this could include how team
370 norms exert influence on the behavioural tendencies and interactions of teammates (e.g.,
371 Graupensperger et al., 2020). In comparison, a bottom-up approach places emphasis on emergent
372 processes that originate from within individuals (e.g., cognitions, affect, behaviours) and through
373 social interactions between team members, emerge as a higher-level phenomenon (Kozlowski &
374 Klein, 2000). For instance, one could consider how member behaviours and interactions over
375 time result in collective efficacy (e.g., Myers & Feltz, 2007).

376 As previously discussed, research pertaining to thriving as a higher-level phenomenon is
377 often rooted in broaden-and-build theory (Fredrickson, 1998) and based on the notion that
378 emotions are contagious (Barsade, 2002). Notably, contexts that have high levels of task and

379 social interdependence as well as stable membership—which is certainly the case for sport
380 teams—are considered to be emotionally contagious contexts (Barsade, 2002; Clarkson et al.,
381 2020). In this regard, if individual athletes are thriving, teammates may be more likely to ‘catch’
382 those positive emotions, enhance their own thriving, and contribute to thriving as a collective
383 over time. Together, given that (a) group-level thriving is proposed to emerge through emotional
384 contagion and (b) athletes are embedded within complex interdependent environments that can
385 result in shared experiences, a bottom-up approach is deemed most appropriate for exploring
386 collective thriving in sport. We propose that whereas thriving originates at a lower level (i.e., an
387 individual’s subjective thriving experience), it can manifest as a higher-level phenomenon
388 through the interactions and exchanges of teammates.

389 When adopting a bottom-up approach, Kozlowski and Klein (2000) emphasise the
390 importance of considering collective construct properties, which will influence how said
391 construct emerges at a higher-order level. They posit that three types of collective constructs
392 exist: global, shared, and configural (Kozlowski & Klein, 2000). Global constructs originate and
393 manifest at the collective level and are often easily observable, objective, and descriptive. For
394 instance, team size and location are considered global constructs. Shared and configural
395 constructs originate at lower-levels and manifest as higher-level constructs (Kozlowski & Klein,
396 2000). As the name implies, shared constructs originate through individual member experiences,
397 thoughts, and behaviours that *converge* through group member interaction. This convergence
398 signifies consistency across team member perceptions whereby within-unit consensus is
399 achieved, allowing for individual-level responses to be aggregated to represent the higher-level
400 phenomenon (Kozlowski & Klein, 2000). For instance, collective efficacy is a shared construct
401 because it emerges through team members’ shared confidence in their team’s ability to

402 collectively complete relevant tasks (Myers & Feltz, 2007). Configural constructs are
403 functionally equivalent in that they also originate at a lower-level and manifest at a higher-level.
404 However, rather than observing this ‘convergence’ of perceptions, they capture the variability,
405 pattern, or array of team member characteristics that combine to form a meaningful pattern.
406 Thus, configural constructs are not functionally equivalent across levels. For instance, team
407 performance is a configural construct because it can reflect the strongest or weakest member’s
408 performance, or a combination of all team members’ performances (Kozlowski & Klein, 2000).

409 Whether thriving at a group-level is considered a shared or configural construct will
410 subsequently influence how this construct is proposed to emerge. More specifically, emergence
411 can be categorised into two types, composition or compilation emergence (Kozlowski & Klein,
412 2000). Shared constructs experience composition emergence, which is based on the assumption
413 of isomorphism, wherein consistent lower-level characteristics yield a higher-level construct.
414 Through member interactions and team processes, consistent and homogenous perceptions
415 across team members merge. In this way, individual members’ shared perceptions that their team
416 is thriving can be averaged to represent the higher-level phenomenon. In comparison, for
417 configural constructs, compilation emergence occurs when different but related lower-level
418 characteristics combine resulting in a complex, higher-level phenomenon. In this case, individual
419 athletes contribute uniquely to the emergence of thriving at the group-level in that some may be
420 more influential than others.

421 Based on our current understanding of thriving collectives from organisational science
422 literature, we explore thriving at the group-level as both a shared and configural construct in the
423 subsequent sections. Given that both composition and compilation processes are likely at play
424 when examining collective constructs (Bonito & Keyton, 2019), we do not propose one single

447 (e.g., no empirical algorithm exists to measure these constructs), we only discuss direct-
448 consensus, referent-shift consensus, and dispersion models, respectively.

449 For a direct-consensus model, within-group consensus of lower-level data is used to
450 specify the meaning of a higher-level construct (i.e., lower-level data are functionally isomorphic
451 to the higher-level form; Chan, 1998). To examine whether consensus has been achieved, a
452 within-group agreement index (e.g., r_{wg} ; James et al., 1984) can be employed by identifying a
453 specific cut-off value from the lower-level data. Typically, aggregation is appropriate if the mean
454 exceeds or is equal to 0.70 (Klein & Kozlowski, 2000). Thus, if within-group agreement is
455 achieved, this justifies the aggregation of lower-level data to reflect a higher-level construct. In
456 addition, intra-class correlation (ICC) coefficients can be used to determine the ratio of between-
457 group variance to total variance, with a large ICC providing evidence for composition processes
458 (Bonito & Keyton, 2019). For instance, researchers have measured psychological climate (i.e.,
459 individual perception of working environment) and when within-group agreement is achieved,
460 these individual scores have been aggregated (i.e., clustered) to represent the higher-level
461 construct, organisational climate (Chan, 1998). Notably, a key limitation of this model is that
462 aggregating individual-level data can result in the oversimplification of group-level constructs
463 (Chan, 1998).

464 Similar to that of the direct-consensus model, the referent-shift consensus model also
465 uses within-group agreement to index consensus and justify the aggregation of lower-level data
466 to a higher-level construct (Chan, 1998). However, this model addresses the aforementioned
467 limitation of the direct-consensus model by shifting the referent prior to consensus assessment
468 (i.e., the new referent is being combined to represent the higher-level construct)—resulting in a
469 conceptually distinct higher-level construct derived from lower-level data. For instance, and in

470 line with the previous example, instead of measuring and aggregating individual perceptions of
471 psychological climate, the researchers are now interested in examining how individuals believe
472 others within their organisation perceive their psychological work climate (i.e., referent changes
473 from self to others)—resulting in psychological collective climate (Chan, 1998).

474 While the aforementioned models use within-group agreement to justify the aggregation
475 of scores from lower-level data, researchers have highlighted various limitations. For instance,
476 these models overlook the variation in team member responses, in that within-group variance is
477 treated as error (Chan, 1998). Notably, this can result in the over-simplification of team-level
478 constructs (Dawkins et al., 2015). Thus, an alternative model that combats these limitations is the
479 dispersion model. Here, within-group variance (i.e., within-group dispersion scores) serve as the
480 operationalisation of the focal construct. For instance, rather than treating variance as error when
481 exploring psychological climate, the dispersion of individual climate scores may be indexed to
482 represent the construct, climate strength. It is important to note however, that whereas within-
483 group agreement is no longer a prerequisite, dispersion models require the absence of
484 multimodality (i.e., substantively meaningful subgroups do not exist; Chan, 1998).

485 Altogether, based on the aforementioned compositional models and their respective
486 strengths and limitations, we propose three forms of thriving at the group-level. Herein, each
487 form is explained with their corresponding referent and model(s) adopted, modes of data
488 collection, and example items that can be used to measure each form.

489 ***Proposition 1: Common thriving occurs when team members perceive themselves to be***
490 ***individually thriving at the same time.***

491 Common thriving is proposed to occur when individual team members are thriving at the
492 same time (See Table 1, Row 1). Depending on whether thriving is conceptualised as a shared or

493 configural construct, a direct-consensus or dispersion model may be adopted. If conceptualised
494 as a shared construct, a direct-consensus model would be adopted in that the meaning of the
495 higher-level construct (in this case, common thriving) is indexed by the level of consensus
496 achieved among lower-level units (i.e., perceptions of individual thriving). When within-group
497 agreement is achieved (e.g., the majority of team members think they are thriving at the same
498 time), the aggregation of data to represent common thriving is justified. In terms of data
499 collection, participants provide independent ratings of their own subjective thriving score (i.e.,
500 referent is the self) answering questions such as, ‘I am satisfied with my performance today’ and
501 ‘I felt alive and vital’. These individual scores are then aggregated (combined) to represent
502 common thriving. Of note, this model has been adopted when measuring collective thriving at
503 work. Xu and Wang (2020) asked employees to rate their individual level of thriving using
504 Porath et al.’s validated 10-item thriving at work scale. Upon achieving within-group consensus,
505 they aggregated the data to represent collective thriving (Xu & Wang, 2020).

506 Alternatively, if conceptualised as a configural construct, then within-group variance is of
507 interest and subsequently, a dispersion model is adopted. More specifically, the dispersion model
508 examines the extent to which individual perceptions of one’s own thriving are dispersed. The
509 data collection and example items remain the same as the direct-consensus model; however, now
510 a multilevel model is adopted to examine variance at both the team (i.e., shared perceptions of
511 individual thriving) and individual levels (i.e., individual perceives themselves to be thriving).
512 Notably, this model has been adopted when examining collective thriving in the organisational
513 context. Walumbwa et al. (2018) used the thriving at work scale (Porath et al., 2012) to examine
514 collective thriving. Based on the ICC1 value, it was determined that there was sufficient
515 individual and unit-level variance and thus, adopted a multilevel model.

516 *Proposition 2: Team thriving occurs when team members perceive their team as a whole to be*
517 *thriving.*

518 Team thriving reflects individual team members' perceptions that their team is thriving as
519 a whole (See Table1, Row 2). If conceptualised as a shared construct, a referent-shift consensus
520 model is adopted (Chan, 1998)—in that individuals are now responding in relation to perceptions
521 of their team's thriving rather than their own. If within-group agreement is achieved (e.g., 0.70),
522 the lower-level data can be aggregated to represent team thriving. Unlike common thriving
523 where the lower-level data is conceptually and functionally the same across levels of analysis
524 (i.e., isomorphic), the referent-shift results in a conceptually distinct higher-level construct. With
525 respect to data collection, in this approach participants provide an independent rating of their
526 own subjective perception of their team's thriving, and could answer questions such as, 'I am
527 satisfied with my team's performance' and 'I thought the team was alive and vital'. Notably, this
528 model has been used in the organisational context when examining collective thriving whereby
529 Porath et al.'s (2012) thriving at work scale referent was changed from 'I' to 'Team members'
530 (Wu & Chen, 2019). While aggregation of the lower-level data was justified in this study, it is
531 important to consider limitations of said model (i.e., neglects the multilevel nature of the data as
532 individual members are nested within organisational units). Thus, conceptualising team thriving
533 as a configural construct and as a result, examining team thriving via a dispersion model may be
534 more appropriate. Here, the variation of individual perceptions of team thriving is of interest. In
535 this instance, the same data collection process and example items corresponding with the
536 referent-shift model are employed; however, multilevel modelling is now used to analyze the
537 relationship among lower-level variables (i.e., individual perceives the team to be thriving)
538 within higher-level units (e.g., team; i.e., shared perception of team thriving).

539 ***Proposition 3: Collective thriving represents the integration of team members' perceptions that***
540 ***their team is thriving as a whole.***

541 The final proposed approach to exploring thriving for interdependent teams is collective
542 thriving (See Table 1, Row 3). Here, collective thriving represents the integrated perceptions of
543 members that perceive themselves as a team, to be thriving. If deemed a shared construct, a
544 referent-shift consensus model is adopted (Chan, 1998) in that participants provide a rating of
545 their team's subjective thriving experience from their integrated perception as team members
546 (e.g., 'We, as a team, are satisfied with our performance today'; 'We, as a team, felt alive and
547 vital'). Participant scores are then aggregated if within-group agreement is achieved to represent
548 collective thriving. In contrast, if conceptualised as a configural construct, the variance of
549 integrated perceptions of team thriving is examined via a dispersion model (i.e., the degree to
550 which team members agree that their team is collectively thriving). Altogether, high variability in
551 team member scores reflects low strength in collective thriving perceptions, whereas low
552 variability in team member scores reflects high strength in collective thriving perceptions.

553 Whereas further empirical exploration of the three propositions is warranted, it is
554 important to note that when examining the various types of thriving with other correlates, it is
555 not expected that the same compositional model needs to be adopted. Rather, the
556 operationalisation of the variables in question are dependent on each construct's guiding
557 theoretical underpinnings (Chan, 1998; Klein & Kozlowski, 2000). Similar to that of thriving at a
558 group-level, one must determine if the collective construct is global, shared, or configural, which
559 in turn, will influence which model is most appropriate (Chan, 1998). For instance, if collective
560 thriving is deemed a configural construct and is being examined in relation to collective efficacy
561 (i.e., a shared construct), two different compositional models could be adopted (i.e., dispersion

562 versus referent-shift). Alternatively, if team thriving—conceptualised as a shared construct—is
563 being examined in relation to psychological capability (also a shared construct), a strong
564 rationale for adopting two referent-shift models could be provided.

565 **Part 3: Key Considerations and Fundamental Questions**

566 While the aforementioned approaches to conceptualising thriving as a group-level
567 construct provide researchers with explicit avenues for further empirical exploration, various
568 considerations remain. We encourage readers to critically reflect on the following questions as
569 we seek to promote clarity and continuity for the inquiry of thriving collectives.

570 **Does Thriving at a Group-Level Have Unique Enablers and Process Variables?**

571 Although future research would benefit from exploring the influence of already identified
572 individual-level enablers (e.g., resilience, self-efficacy) and process variables (e.g., BPNS,
573 challenge appraisal) on thriving collectives, it is important to consider whether this construct has
574 unique team-level enablers (e.g., team resilience, collective efficacy) and process variables (e.g.,
575 collective mindfulness; Wu & Chen, 2019). For instance, various group and environmental
576 factors that have been found to shape interdependent sporting contexts and subsequently,
577 influence team functioning and member satisfaction may be considered. This can include
578 variables such as entitativity (i.e., the degree to which members view others as part of a
579 collective; Campbell, 1958), motivational climate, and team norms (Forsyth, 2014). Notably, all
580 of these factors have the potential to shape teammate interactions and processes (e.g., Eys et al.,
581 2019; Forsyth, 2014; Martin et al., 2017) which subsequently, may promote the emergence of
582 thriving at a group-level. Altogether, examining both previously identified and potentially unique
583 enabler and process variables at the individual and team levels will provide researchers with a
584 more all-encompassing perspective of individual and group-level thriving.

585 Can a Team Experience Affect and Vitality or is it the Individuals Within a Team?

586 Recognising and examining the role of interpersonal and collective emotional
587 experiences has surged in the field of sport psychology (Rumbold et al., 2022; Tamminen &
588 Bennett, 2017; Wolf et al., 2018). Group-based emotions are described as a function of one's
589 identity to a particular group such as feeling proud when collective goals are achieved (Rumbold
590 et al., 2022; Tamminen & Bennett, 2017). Relatedly, collective emotions are a type of group-
591 based emotion that team members experience together (e.g., feeling disappointed after losing a
592 competition; Tamminen & Bennett, 2017). Emotions can also be viewed as a social phenomenon
593 when exploring the process of emotional contagion, in that the emotions of one athlete begin to
594 shape and affect the emotions of another (i.e., an athlete 'catches' another athlete's feelings;
595 Tamminen & Bennett, 2017).

596 Although individual thriving is considered a subjective state, thriving at a group-level
597 may be more accurately described as intersubjective, in that this construct arises through
598 meaningful social interaction between teammates (Tamminen & Bennett, 2017). More
599 specifically, the emotions between teammates are co-created and result in the characterisation of
600 a higher-level phenomenon (Tamminen & Bennett, 2017). Thus, in the context of thriving
601 collectives, individuals who strongly identify as members of the team may be more likely to
602 experience group-based emotions such as affect and vitality at the team-level—which are
603 indicative of the well-being dimension of thriving. In addition, given that interdependent sporting
604 contexts are highly susceptible to emotional contagion (Tamminen & Bennett, 2017), if one
605 athlete is thriving, this may increase the likelihood that other teammates will thrive which, over
606 time and through social interaction, may result in common, team or collective thriving. Similarly,
607 it may also be true that athletes who are not thriving could negatively influence their teammates

608 and subsequently, hinder their team's ability to thrive. Altogether, when considering emotions as
609 an interpersonal phenomenon, it is expected that not only can individual team members
610 experience high levels of vitality and affect indicative of well-being, but so too can the team as a
611 whole.

612 **Are Some Team Members More Influential in Promoting Thriving Collectives?**

613 Another consideration pertaining to the emergence of thriving as a group-level construct
614 is whether specific team members may be more likely to shape the extent to which a team
615 perceives themselves to be thriving. For instance, Cross and colleagues (2003) examined the
616 energy (i.e., vitality) of team members at the individual, group, and organisational levels using an
617 'energy network.' Similar to that of social network analysis and the construction of sociograms,
618 energy networks provide information on which individuals are deemed 'energisers' (i.e., strong
619 performers) or 'de-energisers' (i.e., less reputable members) of a team (Cross et al., 2003). Given
620 that vitality serves as a key component of the well-being dimension of thriving, individuals who
621 are deemed 'energisers' and are central to the team (i.e., individuals that interact with the
622 majority of team members) may play a more significant role in promoting a shared belief that
623 one's team is thriving than peripheral members and/or 'de-energisers'. Similarly, and in relation
624 to performance, high performing team members such as starting players or leaders/captains may
625 play a more influential role in enhancing a team's perception that they are thriving in comparison
626 to non-starting or less skilled players. Taken together, energy networks may serve as a unique
627 methodological approach to examining which team members have the strongest potential in
628 contributing towards thriving perceptions at the group-level. Centrally positioning team members
629 who are thriving may also have important implications for promoting thriving amongst team
630 members and, over time, thriving at a collective level. Moreover, examining athletes' subjective

631 perceptions regarding which key social agents shape a team's belief that they are thriving
632 together is an important future research consideration.

633 **Do We Need Team Member Consensus to be Considered a Thriving Collective?**

634 When exploring the emergence of collective constructs, researchers suggest that for a
635 team-level phenomenon to manifest, team members must share similar perceptions pertaining to
636 the indicators of said construct (i.e., indicators that thriving at a group-level is occurring;
637 Kozlowski & Klein, 2000). Depending on whether the three forms of thriving are conceptualised
638 as shared or configural constructs, this will subsequently influence whether team member
639 consensus is required (Lang et al., 2018). For instance, if deemed shared, consensus is a key
640 component of compositional emergence (Lang et al., 2018)—in that team members develop
641 shared perceptions over time that their team is thriving. However, if conceptualised as
642 configural, thriving emerges via compilational processes (i.e., some members may contribute
643 more strongly to a thriving collective than others) and thus, examining the dispersion of
644 perspectives is more meaningful. Accordingly, consensus is not required amongst all teammates
645 but rather, it may be the case that only a baseline level or threshold needs to be met in that key
646 members are thriving and perceive the collective to be thriving.

647 **How Should Thriving at the Group-level be Analysed?**

648 To date, collective thriving in the organisational context has been analysed using
649 multilevel structural equation modelling (ML-SEM) to test for within- and between-unit
650 influences (Walumbwa et al., 2018; Wu & Chen, 2019) as well as by performing a series of
651 regressions (Xu & Wang, 2020). Given that athletes are embedded within hierarchically nested
652 teams, it is likely for teammate interactions to influence individual perceptions (i.e., violation of
653 independence; Bonito & Keyton, 2019). Thus, multilevel modelling—also known as hierarchical

654 or linear mixed modelling—can assist researchers in examining within- and/or between-unit
655 differences pertaining to thriving at both the team and individual levels. By accounting for this
656 nested structure of the data, multilevel modelling reduces the potential of a Type I error
657 occurring (Hilbert et al., 2019). Given that this type of analyses has been previously advocated
658 for in sport psychology (e.g., Martin et al., 2017), multilevel modelling could provide researchers
659 with a more all-encompassing perspective of the dynamics at play when examining the
660 emergence of individual and group-level thriving.

661 **Part 4: Why is Examining Thriving through a Group-level Lens Important?**

662 When it comes to thriving athletes, there is growing evidence to support the need to
663 simultaneously promote both performance and well-being (e.g., Brown et al., 2021; Davis et al.,
664 2021; Passaportis et al., 2022). Moving beyond the individual athlete, exploring thriving as a
665 group-level construct serves as a salient avenue for promoting development and success at a
666 team-level. In the following paragraphs, we outline the implications of examining thriving
667 collectives in sport and end with concluding thoughts pertaining to advancing a systematic and
668 coherent line of inquiry.

669 In the organisational domain, Spreitzer and Sutcliffe (2007) highlight various benefits
670 associated with exploring thriving collectives including: (a) enhancing the vitality of our social
671 and public environments, (b) improving the long-term sustainable performance of collectives
672 (e.g., teams, work groups, organisations), (c) developing new behavioural routines to enhance
673 decision-making and remain resilient in the face of adversity, and (d) reducing healthcare costs
674 through the development of healthier and happier collectives. Given the increased emphasis that
675 has been placed on promoting sporting environments that are conducive to whole-athlete
676 development (e.g., Henriksen et al., 2020; Poucher et al., 2021; Purcell et al., 2019) these

677 benefits also hold value for athletes and key social agents (e.g., coaches, staff). For instance, if
678 coaches are aware of the possibility for common, team, or collective thriving to emerge and
679 subsequently, the factors that best enable and promote them (e.g., identifying ‘energisers’ on their
680 team), invested sport partners can engage in purposeful activities (e.g., centrally positioning
681 thriving athletes) to promote the development of thriving teams. Moreover, when reflecting upon
682 the various social agents embedded within elite sporting contexts (e.g., support staff, coaches,
683 practitioners), one may also consider the possibility for different types of thriving collectives to
684 emerge (e.g., athlete-staff, staff only) depending on the roles and characteristics of group
685 members. Thus, broadening our perspectives on thriving at a group-level to encompass key sport
686 partners (e.g., coaches, support staff) is also a worthwhile endeavour.

687 Specific to team dynamics in sport, scholars have recognised the inevitability of group
688 development, along with their unique implications for both individual (e.g., sport adherence) and
689 team-level functioning (e.g., achieving collective goals; Eys et al., 2019). Thus, exploring
690 thriving at a group-level in sport serves as a salient avenue to (a) bridge micro and macro
691 perspectives pertaining to multilevel theory situated in team dynamics literature and (b) enhance
692 the breadth of research pertaining to emergent states—and team dynamics more broadly, in the
693 field of sport psychology. Multilevel research has been advocated across research fields
694 including both team/group dynamics (e.g., Morgeson & Hofmann, 1999) and sport psychology
695 (e.g., team resilience, Morgan et al., 2017; collective efficacy, Myers & Feltz, 2007). Moreover,
696 it has been noted that when a multilevel approach is adopted, it is often from a top-down
697 perspective, thereby overlooking the emergent phenomena that manifest through the interactions,
698 characteristics, and behaviours of individuals (Kozlowski et al., 2013). Given the inherently
699 interdependent and complex environment in which sport teams are embedded—in concert with

700 their nested nature, adopting a multilevel approach through a bottom-up lens is crucial in
701 advancing a more complete understanding of collective phenomena in the sports context. More
702 specifically, examining thriving at the group-level provides researchers with the unique
703 opportunity to explore the linkages between lower-level (e.g., individual athlete thriving) and
704 higher-level phenomena (e.g., common, team, or collective thriving) which altogether, could
705 result in a more accurate and all-encompassing multilevel framework of thriving in sport.

706 Advancing research pertaining to team dynamics and more specifically, emergent states,
707 is also integral for the field of sport psychology (Eys et al., 2020). To date, when examining
708 emergent states in sport there has been an overreliance on cohesion and collective efficacy (e.g.,
709 Eys et al., 2019; Eys et al., 2020). While both constructs play important roles in promoting team
710 effectiveness, neglecting to consider other emergent states (e.g., collective thriving, social
711 identity, team resilience) that have been closely tied with enhanced team functioning can
712 potentially hinder the development of this field (Eys & Brawley, 2018). Thus, broadening the
713 scope of emergent states to include the exploration of thriving as a higher-level phenomenon
714 serves as a fruitful avenue through which group dynamics research in sport can continue to be
715 advanced. Moreover, when considering the structure of a team, given that sport types are
716 increasingly being considered in relation to either task (i.e., the extent to which members must
717 interact with each other when engaging in their sport) and outcome interdependence (i.e., the
718 extent to which members must rely on one another to achieve superordinate goals; Evans et al.,
719 2012), the implications of thriving at the group-level extend beyond a traditional individual
720 versus team sport dichotomy. More specifically, thriving collectives can be examined across a
721 diverse range of interdependent teams (e.g., a traditional team sport such as ice hockey versus a
722 team where individuals contribute towards a collective score such as cross-country running)

723 offering novel future research directions pertaining to group-level thriving differences (e.g.,
724 enablers, processes) by team type.

725 **Conclusion**

726 The purpose of this paper was to propose three forms of group-level thriving in
727 interdependent sport and advance key considerations and questions that merit further exploration.
728 As demonstrated throughout this paper, there remains exciting new opportunities to advance our
729 understanding of thriving collectives pertaining to conceptual and operational underpinnings. In
730 doing so, researchers and practitioners can seek to maximise the benefits associated with these
731 collective constructs. Altogether, the authors advocate for purposeful and systematic exploration
732 of thriving as a higher level-phenomenon with the purview of fostering sporting environments
733 that are conducive to whole athlete development and high functioning teams.

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745 **Declaration of interest:** The authors report there are no competing interests to declare.

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